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ABSTRACT

The paper describes a curriculum model developed for gifted and talented students in an integrated middle school program, as a cooperative effort between the College of Education at the University of Houston and a Houston middle school. The program includes identification procedures, curriculum practices, and evaluation techniques. The curriculum is intended to be both differentiated and interdisciplinary. The curriculum consists of subject matter in eight areas: math, science, social studies, language arts, music, art, computer technology, and Spanish. Teachers become teachers/advisors in the program and assist students in individual and group activities according to student interest and subject area proficiency. Results of the initial 5-year pilot phase and a refined pilot phase indicated that students developed independent study skills and decision-making strategies. Teaching teams developed 3-week study guides for each subject area and for interdisciplinary areas. These brief guides identify topics, subtopics, essential curriculum elements, a selection of activities, an evaluation process, and suggested references. Seven study guides are attached. (DB)

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Curriculum Development for Gifted and Talented Middle School Students

By

Theresa M. Monaco PhD. and Jane Goodner

Developing an effective project to meet the unique needs of middle school gifted and talented students requires ingenuity, and is essential in today's society (W. D. H. Georgiades, Dean, College of Education, University of Houston, personal communication, June 12, 1989).

Abstract

The College of Education at the University of Houston in cooperation with the Pines School developed a Vanguard curriculum model with an associated acronym: Structured Curriculum for Individualization in the Middle School (SCIMS). The initial curriculum pilot program was designed for both the regular and gifted middle school age (11-14 years old) students. However, it was further refined to be used with identified gifted students in an integrated school program. In the Fall of 1989, in collaborative action with Houston Independent School District modified and implemented this new curricular model for middle school classes in its program for gifted and talented students.

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The Vanguard program includes identification procedures, curriculum practices, and evaluation techniques. This student-oriented curriculum is differentiated; therefore, it ensures interdisciplinary connections. The program is designed to help all middle school students develop academic, as well as, social, and emotional skills. Teachers become teacher/advisors in the program and assist students in individual and group activities according to student interest and subject area proficiency. Results of the initial pilot phase and the refined pilot show that students developed independent study skills as they develop decision-making strategies which help their own educational goals, and career aspirations.

Curriculum Pilot

The Pines School in collaboration with the University of Houston Center for Gifted and Talented Education developed, and piloted the SCIMS program over a five year period. The SCIMS curriculum consists of subject matter content in eight areas of the curriculum. These areas are math, science, social studies, language arts, music, art, computer technology, and spanish. Students who participated in the pilot program completed the course study guides during the school year under the supervision of classroom teachers-advisors. During the summers the students, teachers, professors, and graduate students met at the Center for Gifted and Talented Education at the University of Houston to

strengthen the curriculum by making changes that would enhance the program. The students were very specific in their assessment of the program. During this evaluation process deletions and/or additions were made to the study guides. Activities that the students found "boring" or "tedious" were deleted. For example, the students voted to eliminate the activity on "raising a Bonsal tree" because of the relevancy and the time required to complete this activity. The students made many valuable additions to the study guides. These additions included activities that were more to their liking and which also met the objectives of the class. The program as conceptualized by the Center's master teachers and strengthened by these same teachers and their students resulted in the curriculum pilot program (SCIMS).

During the pilot phase of the curriculum development it was noted that teachers, students, and administrators appreciated the simplicity of the format. The process provides a maximum amount of student participation, individualization, and achievement. The curriculum allows for self-pacing (time, learning-rate, and materials) through selected learning activities as basic skills are reinforced.

The SCIMS program grew out of the beliefs and ingenuity of master teachers from the Greater Houston area. The master teachers believe that each middle school student who completes this program will be able to demonstrate observable growth at each grade level in the following areas of personal, academic, social, and emotional maturity:

1) Development of a positive self-concept.
2) Appreciation of mental and physical health.
3) Ability to function independently and collaboratively.
4) Proficiency in reading, reasoning, and communication.
5) Ability to think creatively.
6) Ability to think critically.
7) Ability to solve problems affectively.
8) Ability to critically solve problems.
9) Enjoyment of living and learning.
10) Development of a global perspective on issues.
11) Development of a set of values congruent with community life.
12) Ability to be productive in a pluralistic society.

The nature of gifted middle school students, their learning styles, and appropriate curricular practices define this student-oriented, teacher/advisor model for learning. These basic beliefs were the basis for developing the content and format of the SCIMS curriculum. Thus, these beliefs about students, their aspirations and goals provide master teachers with the vision that makes pragmatic application on a day-to-day basis an enjoyable reality.

The Vanguard Program

The design of the curriculum and its implementation strategies were based on the recommendations made by leaders in the field of gifted education (Maker, 1982: Van Tassel Baska, 1988). The design

consisted of three components: identification, curriculum, and evaluation. All three of these components are crucial to the overall success of the curriculum. (See Figure 1).

INSERT FIGURE 1 HERE

Identification

Identification consists of two phases: 1) screening, and 2) selection. The middle schools in the Houston Independent School District participate in the identification process for inclusion in this program. All potentially gifted students nominated by parents, teachers, or mentors applied for the Vanguard program. This process ensured equal access to the nominated students during the initial screening phase of the identification process. In a telephone conference (personal communication, June 30, 1989) Betty Herbert (Houston ISD), Paul Slocumb (Lamar ISD), Robert Seney (Spring Branch ISD), Peggy McWorter (Galena Park ISD), and Barbara Rives (Lamar University) agreed that the identification criteria should include representative students from each of our multi-ethnic school communities. To ensure selection of these students, students were asked to bring a portfolio of any products or information that they believed should be part of the selection process. As a result of this process, the identification process allowed for entry of students with diverse ethnic backgrounds and

diverse abilities

Each of the above school systems developed its own matrix to identify students. These matrices include an intelligence quotient (IQ), or an extrapolated IQ, an academic performance index (or indices), a parent, teacher, or self nomination index, and an index of creativity and/or a portfolio of exemplary products with mentor ratings.

The 1-2-3 Vanguard Approach

The Vanguard approach designed in collaboration with Houston ISD for use in the school district's gifted program complies with the Texas Guidelines for Implementing Programs for Gifted Students (1979). The curriculum focus ensures subject matter (discipline) integrity as well as an interdisciplinary approach across subjects lines.

The basic principles of learning taken from the literature (Van-Tassel Baska, 1988) and the guidelines from the Texas Education provided the foundation for a simplified approach to the 1-2-3 curriculum.

The curriculum was designed for each grade level (sixth, seventh, and eighth) and for each subject taught. The subjects are math, science, social studies, language arts as well as music and art.

Master teachers designed three week study guides to cover all the essential elements (basic skills) for the subjects they taught. In addition, they also designed interdisciplinary study guides to cover the gifted learning outcomes across at least three subject areas (disciplines). Both types of units, the single subject and interdisciplinary study guides were designed in a one-two-three format. The single subject unit format emphasis is described as follows for science (See Figure 2):

Science

1) Generalization- life has many forms.

2) Concept- life and forms.

3) Sub-subjects:

a) Life Science

b) Social Science

Product: Select one or more activities from the study guide or develop your own and identify a product with your teacher-advisor's help.

INSERT FIGURE 2 HERE

The format is also simplified for an interdisciplinary unit as follows in History, Mathematics, and Music (See figure 3):

1) One generalization.

Example: Life is basic to liberty.

2) Two concepts.

Example: Life and Liberty.

3) Three Subjects.

Example: History- trace the political upheavals that occurred throughout time due to a peoples need for freedom.

INSERT FIGURE 3 HERE

The interdisciplinary connection takes a one-two-three approach,simplified in the Vanguard curriculum for the teachers. Teachers relate two concepts common to two or more disciplines. Individual study guides encompassing higher level thinking skills, planning with a teacher/advisor, and researching are major components of the program. Individual movement through the program allows the learner to make maximum use of time and independence and to create his/her own learning activity. Through the development of self-discipline in this student-oriented environment, the student realizes their personal potential and function more effectively and harmoniously in society.

The Vanguard Format

The format of the Vanguard curriculum consists of a one page study guide with an eye-catching title, a topic, a subtopic, essential curriculum elements, a selection of activities based on Bloom's Hierarchy of Critical Analysis (Bloom, 1956) and an evaluation process. The study guide also includes a list of possible references that the student may find helpful. Students use a variety of materials to gain concept mastery. These include encyclopedias, special books in the classroom, school and local libraries, magazines, and 1-800 numbers to call experts all over the United States. Figure 4 outlines the curriculum components.

INSERT FIGURE 4 HERE

Curriculum Features

One unique feature of the curriculum is that it extends the essential elements mandated by the State of Texas, covering the essential elements of each discipline (subject). Further, The curriculum relies upon specific outcomes that teachers of gifted students believed were critical to the curriculum for the gifted. Students need not spend time on material that they already have learned. Once they demonstrate mastery, students move on to the next topic. While teachers of gifted students are not primarily responsible for these basic skills, most teachers had a sense of

security in knowing that students had mastered the contents at grade level and were in an accelerated mode. By an assessment process, they "bought" extra time to be spent on gifted objectives.

A team of three teachers for each subject area examined the subject content to ensure that students achieve concept mastery within a choice of activities. After the initial implementation phase is concluded, only those activities that ensured concept mastery and student enjoyment remained in the study guides. Students may prefer to work in small groups for some topics, in large groups for other topics (seminars, lectures), or work alone on self-designed projects. Participants in the program receive a description of the format as well as a teacher guide and a student guide to ensure knowledge of the project and its components.

The Role of the Teacher/Advisor

Subject area instruction includes sharing in teams of teachers. Teachers in a particular subject area are responsible for brief motivational presentations to groups of students. In these sessions teachers provide information, circulate supplemental written materials, or make oral assignments as needed. Individual teachers may schedule meetings with small groups of students for seminars in particular subject courses. Scheduling is flexible and the majority of teacher time is spent advising students on selected activities and as a subject area resource person. The teacher spends less time on direct instruction and becomes a facilitator

of learning by assisting, monitoring, and evaluating the student's progress. As a facilitator of knowledge, the teacher/advisor assists students in both daily and long range time management. In this role, if the student identifies an alternate activity which will meet the curriculum objectives the teacher-advisor helps students obtain resources to investigate the individual interests.

The Role of the Student

Students use existing knowledge and methodology to become a firsthand inquirer and producer of new ideas and products. Each study guide requires students to complete a product of excellence. Students are able to select from six alternatives, the activity that they choose to complete for the particular study guide topic. Students may suggest an idea for an activity that is not included in the guide if they believe it would better demonstrate their understanding of the topic. Students will work at their own pace and at different levels of difficulty as they progress from one subject to another. Students talented in math, but not as strong in history will select a more challenging activity from the math study guide and a less involved one for history. Students follow their own interests and abilities and select topics that are consistent with their learning styles. This system allows students to be much more in charge of managing their time and enthusiastically selecting activities to be completed over a period of weeks, not just from day to day. Accountability covers a longer

period of time. The selection process allows students to learn to make wise choices of topics that reflect their abilities and level of interest.

Students will be able to see exactly how they earn their grades as they become part of the evaluation process. They will earn points for basic knowledge covered in the essential elements of the subject(s) based on text or tests constructed by the teacher. Project points are also awarded according to pre-established criteria developed by the teacher and students. Process points are awarded for quality under the pre-established criteria. The teacher and students arrive at a summary grade, which is the sum of the test, product, and process scores. Also based on the pre-established criteria is the option available to the students to complete extra credit activities. The teacher/advisor will discuss the evaluation process in a conference with the student.

The Research Process

The study guides for the students include material on the research process. Students are guided through the research process in logical, well-defined steps:

1) Selection of a topic.
2) Defining the problem.
3) Development of an hypothesis.
4) Collection of information.

5) Analysis and evaluation of information collected.

6) Statement of conclusions.

Each step is carefully explained in a format which the students find easy to use. A specific reference guide accompanies each unit study guide. The purpose of the detailed research process and reference guide is to enable the gifted student to work and discover independently.

Study Guide Activities

The purpose of the Vanguard curriculum is to provide interdisciplinary activities at the analysis and synthesis levels of thinking; thereby, making students actual investigators of real problems and related topics. Activities listed generally require analysis, synthesis, and evaluation. The student study guide has lines reserved for student options based on interest, level of ability, and/or preference. This allows the student to analyze the objectives and purpose of an activity to meet the objective. A teacher may permit a student to design an alternate activity to suit personal needs or interests (refer to Figures 2 and 3).

Evaluation

The evaluation process for each study guide provides for measurement of basic essential elements as well as "gifted learning

outcomes". This process consists of five basic areas which must be contained in the student's final product. They are as follows: content, process, product, affective, and evaluation. Mastery of the above skills through activities that reinforce the basic skills, provide enrichment of skills as well as differentiate across subject areas are the basis of the curriculum.

The student's overall performance is determined by the study guide tests as well as the quality of his product. Further development of basic skills can be expanded laterally by the selection of another activity from each study guide.

Growth and development of life skills such as study habits, preparedness, thought process, creativity, and responsibility to self, class, or community are measured by the process points. Evaluation depends upon the observations of the teacher, who will determine the point value for the process. The five categories (content, process, product, affective, and evaluation) suggest ways to evaluate student products. Teachers may select the appropriate combination of evaluative criteria and place value on each. A teacher may weigh testing heavily or choose not to administer a test at all, if the student's product indicates achievement of basic and gifted learning outcomes.

Conclusion

The Vanguard program, as developed by the University of Houston Center for Gifted and Talented Education in collaboration

with master teachers in the Greater Houston area, will continue to evolve with each implementation. The most important feature of the program is its adaptability. School groups may modify the content or process of the curriculum guides to meet their needs. The Vanguard program has the capability of staying modern, workable, and effective.

The curriculum's greatest benefit to the students is the one-two-three Vanguard approach. It is with this approach that students learn the essentials such as math, science and language arts, while at the same time learning how these individual subjects combine to affect every day life. Therefore, the student is able to recognize the overall implications of a single topic.

The University of Houston Center for Gifted and Talented Education which provides this new curricular model, hopes to apply similar techniques in curricular development to piloting and implementing a high school program.

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The Authors

Theresa Monaco, Ph.D, has served as a teacher trainer at the University of Missouri and at the University of Houston, 1969-1989. In addition to preparing teachers to teach gifted students since 1982, Theresa Monaco has spent a great amount of time working with handicapped students. She has a teaching experience foundation of twelve years in elementary and middle schools. She has been the principle investigator of numerous United States Office of Education (USOE) awards in special education and has served on several committees (1980-1984) to evaluate proposals submitted for funding. In 1982 Theresa Monaco, at the request of the University of Houston College of Education submitted the proposal to the Texas Education for establ[illegible]g a major in Gifted and Talented Education. In addition to teacher training, direct teaching, and fund raising activities, Theresa Monaco, with graduate level support, maintains an active gifted center hot-line for teachers, students, and parents who have special concerns. Since 1982 she has written several published works on gifted education, including a Biographical Dictionary of Gifted Education, a current national directory of leaders in the field of gifted education, and twelve articles that have appeared in leading journals.

Jane E. Goodner has been teaching high school English for sixteen years and has taught at Ross S. Sterling High School, Goose Creek Consolidated Independent School District for the last ten years. She began teaching in the gifted English program last year.

She is currently working on a Masters of Education degree in Gifted and Talented Education at the University of Houston.

Figure 1
SCIMS: Identification, Curriculum, Evaluation

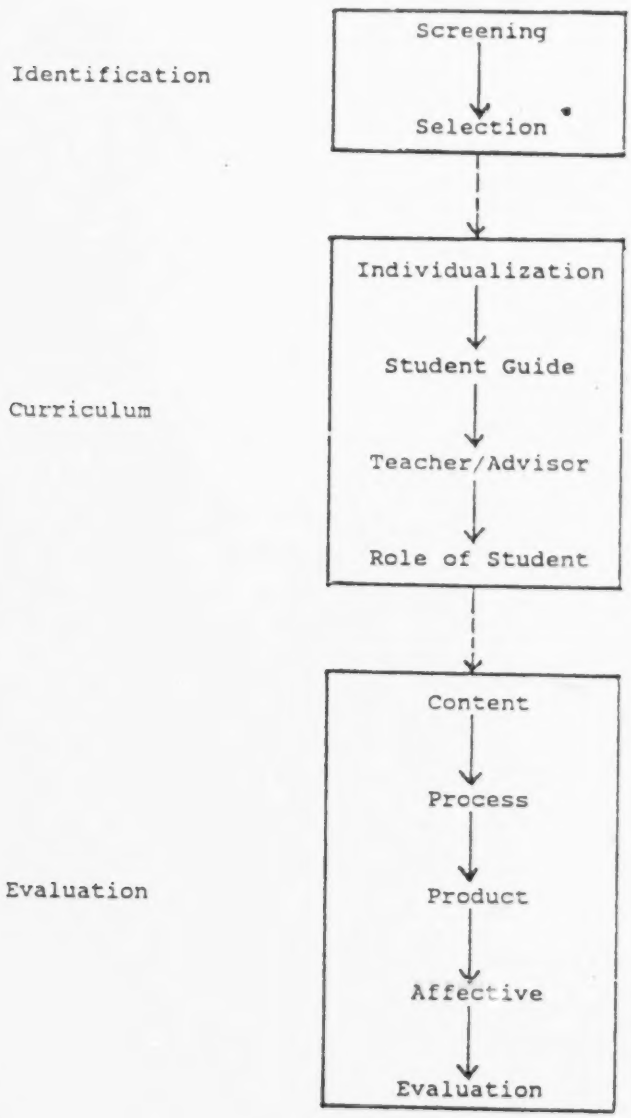

Figure 2 (Front)

VANGUARD

STUDY GUIDE

Student Name _____

Beginning Date _____ Completion Date _____

SUBJECT: Life Science

STUDY GUIDE # 5

ISSUE. THEME. QUESTION

Will the world survive another hundred years?

OBJECTIVES

1. The student will investigate the environmental deterioration process and determine ways to prevent it.

ACTIVITIES (Choose _____ activity(ies) from those listed below.)

1 Investigate a vacant lot around your house for types of life, pollution, etc. over a four-week period. Document your findings.

2 Keep a scrapbook of articles relative to the environment.

3 Invent and demonstrate a usable product made of recycled trash.

4 Compare and contrast four types of water. Invent a way to make plain water taste better. Demonstrate it in class.

5 Design a useful item that provides a service but doesn't product a pollutant.

6 Develop a documentary relating to a controversial issue dealing with the environment.

7 STUDENT OPTION

TEACHER'S COMMENTS

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_____

EVALUATION

		Pts Earned
Test (s)	_____	_____
Product(s)	_____	_____
Process	_____	_____
Summary	_____	_____
TOTAL		_____

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

Make specific observations of a limited area and obtain data about the movement of life forms, collection of pollution, etc.

Newspapers and magazines make excellent resources.

Hopefully, the trash you use will be clean and not have an odor!

Try filtering, boiling, freezing, anything but adding flavor to it.

Remember, any fuel has a waste product when it is burned.

The trick is to design the experiment first

Mine stripping, acid rain, cutting the forests, and the ozone layer are a few suggestions

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Figure 3 (Front)

Name _____ Beginning Date_____ Completion Date _____

VANGUARD INTERDISCIPLINARY STUDY GUIDE

Subjects: History, Language Arts, Fine Arts, Math, Science, Music

UNIT THEME (CONCEPT): Reform

Generalization: Reform is a result of the needs of a society relative to all time and space.

OBJECTIVES

The student will analyze how reform is reflected in a society, to recognize that reform is a constant and changing process.

ACTIVITIES

History
Topic: Movements
Activities: 1. Compare/ contrast 3 reform movements to explain similarities in cause and differences in outcomes.

Math
Topic: Statistics
Activities: 1. Use a timeline to demonstrate the cycles of reform movements. 2. Use statistics to formulate a conclusion how a movement effected the population and the outcome of the movement.

Fine Arts
Topic: Transitions
Activities: 1. Depict the transitions in art reform through various reform movements. 2. Create a new style of art reform.

WHAT IS...Reform?
1. What is reform?
2. How does reform effect the world around you?

Music
Topic: Reform expressed through music
Activities: 1. Create a medley of music performed during reform movements. 2. Create a new style of music reform. 3. Create a commercial jingle focusing on a reform that you would like to see happen

Science
Topic: Sequencing
Activities: 1. Sequence reform movements in science with in the last 100 years. 2. Analyze and discuss moral issues that developed out of reform and scientific advancement.

Language Arts
Topic: Descriptive Writing
Activities:1. Compare/ Contrast different types of literature that demonstrates different periods of time in which different philosophies are reflected.

PRODUCT (student choice)

_____

TEACHER'S COMMENTS

EVALUATION	Pts. Earned
Test_____	_____
Product _____	_____
Process _____	_____
Summary _____	_____
	TOTAL _____

Figure 3 (Back)

REFERENCE GUIDE

Reference Materials/ Ideas/ Resources

Reform is a result of the needs of a society relative to all time and space.

General
Alamanac
World History text

Social Studies
Civil Rights
French Revolution
Bolshevik Revolution
American Revolution
Women's Rights

Math
League of Women Voters
Declaration of Independence
Magna Carta

Language Arts
Separate Peace
Norton's Anthology of British Literature
various prose writers

Fine Arts
computer music

Product Suggestions: tape, picture, dance, commercial, paper, timeline, debate.

Written by: Ann Linsley-Kennedy, Virginia Levy, Barbara Hunt, Barbara Wolf

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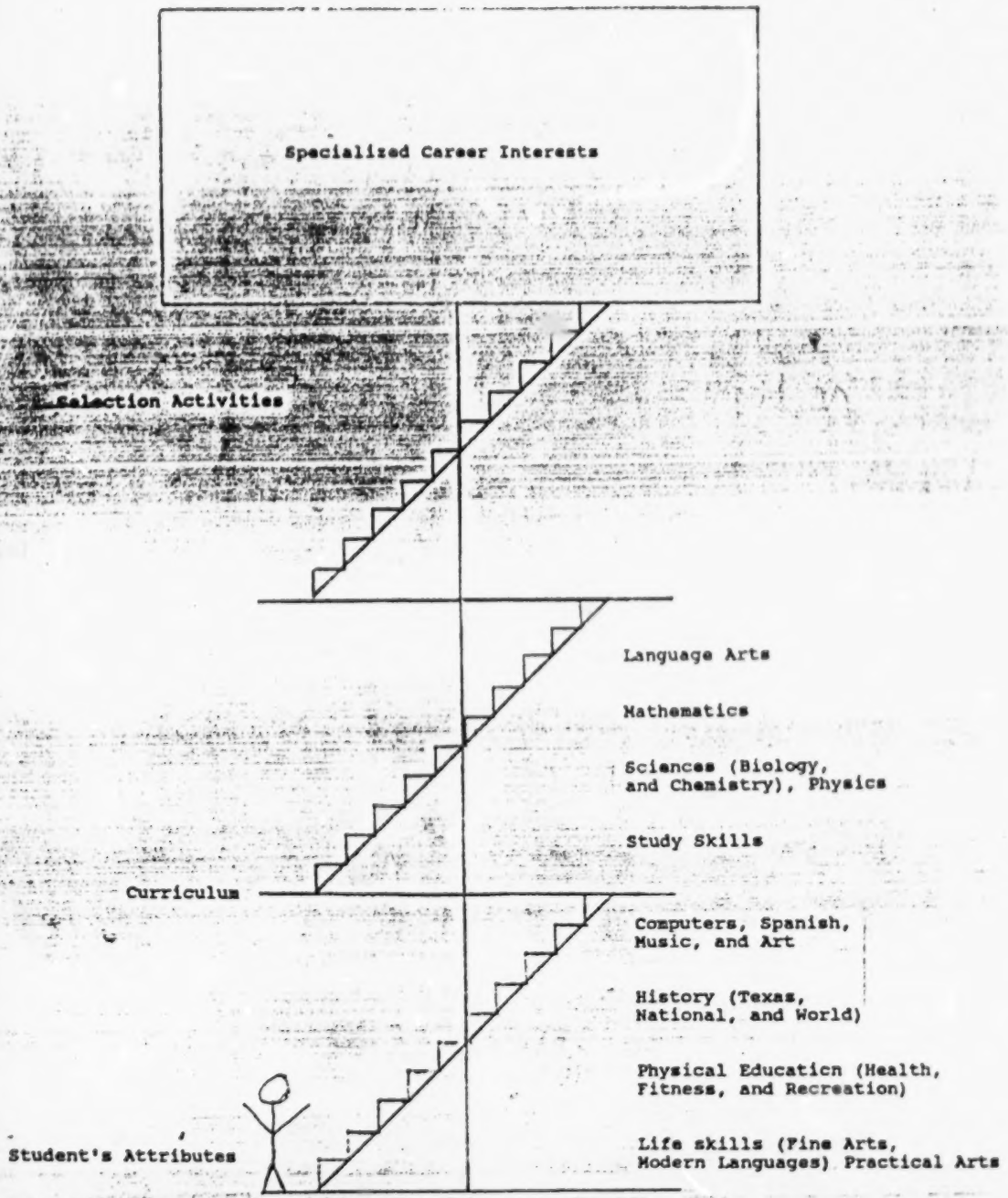
Figure 4



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Additional Study Guides

VANGUARD

STUDY GUIDE

Student Name _____

Beginning Date _____ Completion Date _____

SUBJECT: TEXAS HISTORY 7

STUDY GUIDE #5

ISSUE, THEME, QUESTION

"I find Common Sense is Working a powerful change in the minds of men."

OBJECTIVES

1. The student will test the assumption that the Texas Revolution was a triumph of freedom over tyranny.
2. The student will practice a variety of research and analytical skills necessary for historical investigation.

ACTIVITIES (*Choose _____ activity/activities from those listed below:*)

1. Produce a TV special entitled, "Did the United States provoke the Texas Revolution?" Interview President Jackson and President Santa Anna. Investigate the charges brought by Mexico that the United States caused this revolution. Present the interview orally or on video tape.

2. Create a monument to the Texas Revolution. Recommend a site, develop an architectural design, and design an inscription.

3. With another student, debate the first subject facing the General Consultation--Was Texas fighting for the Constitution of 1824 or complete independence.

4. STUDENT OPTION:

TEACHER'S COMMENTS

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EVALUATION

		Pts Earned
Test (s)	_____	_____
Product(s)	_____	_____
Process	_____	_____
Summary	_____	_____
TOTAL		_____

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

Biographies of President Jackson
Books on Mexican history
Biographies of Santa Anna

Visit the San Jacinto Monument.
Visit the site of the Goliad Massacre.

Books on Texas history.
Books on political history in Texas.

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VANGUARD

STUDY GUIDE

Student Name _____

Beginning Date _____ Completion Date _____

SUBJECT: Language Arts 7

STUDY GUIDE # 1

ISSUE, THEME, QUESTION

Origin and History of Words:
Who started this Mess?

OBJECTIVES

1. The student will understand that language changes.
2. The student will recognize the relationship between English and other languages of the Indo-European family.
3. The student will identify the etymology of words.
4. The student will pursue independent and guided research.

ACTIVITIES (*Choose _____ activity/activities from those listed below.*)

1. Design a time line that illustrates the history and development of the English language.
2. Design a diagram showing the various ways words have come into the English language.
3. Devise a system that you would use to teach English to an extra-terrestrial. Present to the class.
4. Compare and contrast English and one other language from the Indo-European family. Write a composition outlinging these similarities and differences.
5. STUDENT OPTION:

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TEACHER'S COMMENTS

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EVALUATION

		Pts Earned
Test (s)	_____	_____
Product(s)	_____	_____
Process	_____	_____
Summary	_____	_____
TOTAL		_____

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

Resources: Encyclopedia, English (Unit 19, p. 416)

Resources: card catalog--etymology, English "Language History"

Resource: card catalog--English as a second language.
Interview an ESL teacher.

Resource: Encyclopedia, card catalog--language families.

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VANGUARD

STUDY GUIDE

Student Name _____

Beginning Date _____ Completion Date _____

SUBJECT: Mathematics 7

STUDY GUIDES # 5

ISSUE, THEME, QUESTION

What are my chances?

OBJECTIVES

1. The student will collect, organize, and present data in table and graph form.
2. The student will draw inferences and predict from data.
3. The student will interpret and criticize real-world statistics.
4. The student will investigate the number patterns in Pascal's Triangle.

ACTIVITIES (Choose _____activity(ies) from those listed below.)

1. Illustrate the outcomes that could result from flipping five different coins at the same time. Predict what will happen if you toss these coins fifty times. Record the results in a data table. Compare the results with your prediction.

2. How's your pop? Conduct a taste test comparing 2 or more brands of soda pop. Survey 100 people. Make predictions and draw inferences according to your data. Graph results and write a summary paper.

3. Research Pascal's Triangle. Illustrate and describe the patterns you find in the triangle. List possible outcomes of tossing 1 coin, 2 coins, 3 coins, etc. up to 6 coins. Compare to Pascal's Triangle and write a summary. Your outcomes should be on a chart.

4. Design a probability experiment based on drawing randomly--with and without replacement. Compare the results. Illustrate and write a summary paper.

5. Create a game based on probability and skill. Include choices for multiple levels of difficulty. Create game rules that allow both skill and luck into play. You may use a computer.

6. STUDENT OPTION:

TEACHER'S COMMENTS

_____
_____
_____
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_____

EVALUATION

		Pts Earned
Test (s)	_____	_____
Product(s)	_____	_____
Process	_____	_____
Summary	_____	_____
	TOTAL	_____

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

Coins, knowledge of probability

Soda pop, paper cups, materials for visual display.

Knowledge of Pascal's Triangle (textbook, library).

Marbles, colored chips, playing cards, or other materials.

Poster board, blank game board, or other materials. Spinners and/or dice

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Name _____ Beginning Date_____ Completion Date _____

VANGUARD INTERDISCIPLINARY STUDY GUIDE

Subjects: History, Language Arts, Fine Arts, Math, Science

UNIT THEME (CONCEPT): Fantasy and Reality

Generalization: The greatest contributions to civilization are based on a combination of Fantasy and Reality.

OBJECTIVES

1. The student will compare and contrast fantasy and reality.
2. The student will differentiate between fantasy and reality.

ACTIVITIES

History
Topic: Legends through time
Activities: 1. Research the legends of Count Dracula and compare with current evidence to determine if these are valid.
2. Research a legend from ancient times that has recently been found to be factual and report on the findings.

Fine Arts
Topic: Graphic Illustration
Activities: 1. Create a water color drawing protraying actions of legendary vampires. 2. Create a drawing of one of your fantasies that you would like to become reality.

Math
Topic: Statistics
Activities: 1. Conduct a survey among adults to determine how many people believe in the existence of vampires. 2. Develop a chart showing the relationship between geographic locality and the reported incidences of vampires.
3. Develop a survey to show how many adults believe in fantasies and whether they can become reality.

WHAT IS ... Fantasy & Reality?
1. What is fantasy? What is Reality?
2. How does the relationship between fantasy and reality effect our lives.

Science
Topic: Discovery
Activities: 1. Investigate the vampire bat and the legends surrounding them. Make a report on the possible validity of their actions. 2. Research the causes of illnesses that cause people to lose touch with reality.

Language Arts
Topic: Creative writing
Activities:1. Watch vampire movies and compare the similarities and differences in vampire traits as depicted in the films. 2. Write a story about a fantasy and how it becomes reality.

PRODUCT (student choice)

_____

TEACHER'S COMMENTS

EVALUATION	Pts. Earned
Test_____	_____
Product _____	_____
Process _____	_____
Summary _____	_____
TOTAL	_____

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REFERENCE GUIDE

Reference Materials/ Ideas/ Resources

The greatest contributions to civilization are based on a combination of fantasy and reality.

General
Myths of the Greeks and Romans
Legends of Medieval Europe
Articles on legendary people

History
Legends of Count Dracula by Brams Stoker, 1897.
King Arthur and the Knights of the Round Table
The Tales of Robin Hood
Legends of the Norsemen

Math
Statistical texts/Books/Articles- How to information alamanacs

Science
Medical references on Mental Illness

Language Arts
Movie: *Count Dracula* with Bela Lugosi
Movies about legendary vampires

Product Suggestions: Pictures, Reports, Surveys, Charts, Graphs, Story

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